\$FLIR



HANDHELD SPECTROSCOPIC RADIATION DETECTION & IDENTIFICATION

FLIR identiFINDER® R400

The FLIR identiFINDER R400 is the most widely deployed handheld radiation detection and identification product in the world. At half the size and weight of competitive RIDs, radionuclide identification devices, the R400 helps operators feel comfortable using the instrument even in the most hazardous and stressful environments. Operators use the handheld R400 to detect, quickly locate, measure, and identify the source of radioactive material. Like other identiFINDER R-series products, the R400 contains on-board Bluetooth, web server, and GPS technologies and produces rapid visible, audible, and tactile alerts that expedite response measures. The common operating interface reduces training time and costs, while increasing operator confidence and inter-operability between agencies using FLIR products. The identiFINDER R400 provides operators the ideal balance of size and weight for a wide variety of monitoring scenarios including all-purpose surveying, emergency response, and environmental monitoring. As the only RID with a true underwater variant to withstand up to 10 meters of water indefinitely (IP68), and with over 20,000 devices deployed globally, it is the most trusted RID in the world.

www.flir.com/R400



ALL-PURPOSE, FIELD-PROVEN RADIOLOGICAL SURVEYING

Over 20,000 deployed globally for tough, triedand-true performance

- Nal or LaBr detectors provide custom solutions for sensitivity and resolution
- Available in gamma only or gamma and neutron models
- Underwater model able to withstand submersion up to 10 meters



FAST, RELIABLE IDENTIFICATION AND DETECTION

Rugged and mission-ready for fast front-line detection and response

- Quickly and efficiently detect, locate, measure, and identify sources
- Back-up gamma detector provides detection capability, even in high dose rate environments
- Identifies ANSI N42.34 library
- High resolution, low false alarms



RAPID ALERTS AND COMMUNICATIONS FOR EXPEDITED DECISION-MAKING

Easily transfer important tactical information

- Fast two-minute startup
- On-board GPS, webserver, and Bluetooth capabilities
- Common operating interface reduces training burden
- Large, color display eases data interpretation

SPECIFICATIONS

identiFINDER R400

Technology Radionuclide identification device (RID)

Product Variants NG¹, NGH², UW-NG³, UW-NGH⁴,
 LG⁵, LGH⁶, UW-LG⁷, UW-LGH⁶, T1⁶, T2¹º

Gamma (NaI) 1.4 x 2.0 in (35 x 51 mm)

Gamma (Nal) Tungsten Shielded 9, 10

Gamma (LaBr3) ⁵⁻⁸ 1.2 x 1.2 in (30 x 30 mm)

Neutrons (He-3) ^{2,4,6,8,10} 0.6 x 2.1 in (15 x 54 mm)

Gamma (High Dose Rate)

Energy Range (Gamma)

Geiger-Müller tube

20 keV - 3 MeV

Gamma Spectrum

1024 channels: 3 MeV

Dose Rate / Accuracy (Cs-137) $0 \text{ nSv/h} - 10.00 \text{ mSv/h} (0 \text{ nrem/h} - 1.0 \text{ rem/h}); \pm 30 \%$ Scintillator Dose Rate Range $0 \text{ nSv/h} - 500 \text{ } \mu \text{Sv/h} (0 \text{ nrem/h} - 50 \text{ mrem/h})$ Geiger-Müller Dose Rate Range $100 \text{ } \mu \text{Sv/h} - 10 \text{ mSv/h} (10 \text{ mrem/h} - 1.0 \text{ rem/h})$

Dose Range 0 nSv - 1 Sv (0 nrem - 100 rem)
Overload Dose Rate Range 100 10 mSv/h - 1 Sv/h (1.0 rem/h)

rem/h)

Neutron Sensitivity 2,4,6,8,10,14 2.6 cps/nv; $\pm 20~\%$

Stabilization Variants 1-4 - calibration source

Typical Resolution Variants ^{1.4, 9, 10} - less than equal to 8% Variants ^{5.8} - 4.5%

variants - 4.5

Service Interval
Sampling & Analysis

Sample Introduction Absorption of EM gamma emissions

Threats Detects neutron or gamma radiation emitted from natural

5-year factory maintenance

occurrences in the environment, special nuclear material, industrial, or medical material

 0.9×0.8 in (23 x 21 mm) - Tungsten shielded

Nuclide Identification According to ANSI N42.34
Sampling & Analysis From a few seconds to minutes

System Interface

Display & Alerts

Transflective color LCD

Communication

USB -1, 2, 5, 6, 9, 10

LEMO Series K socket - 3, 4, 7, 8

Data Storage 2GB internal memory; up to 600,000 spectra

Training Requirements <10 mins for operator; 1 day for advanced user

Software Onboard webserver software, Nal Gamma Enrichment Measurements (NaIGEM) algorithm - variant 10

Specifications are subject to change without notice. For the most up-to-date specs, go to www.flir.com

Power

Input Voltage 100-240 VAC (wall and car adapters and USB cable

supplied)

Battery Specs Either rechargeable NiMH or 4x AA pack (supplied); >8h

operational battery life; recharge ≤4h when using AC;

recharge >4h when using USB

Cold Start Time <2 mins from cold start

Environmental

Operating Temperature -4 to 122 °F (-20 to 50 °C)

Operating Humidity 10 to 80% 1,2,5,6,9,10 100% 3,4,7,8

Storage Temperature 14 to 95 °F (-10 to 35 °C)

Physical Features

Dimensions (L x W x H) \leq 3.7 x 10.6 x 3.2 in (9.4 x 26.9 x 8.1 cm) - with battery

Weight ≤3.2 lbs (≤1.5 kg)

Enclosure & Protection Aluminum housing; protection rating IP53 according to IEC 60529 variants^{7,8,9,10} IP68 according to IEC 60529; 10 m; 8 h

Nuclides

Nuclides

10 Cs-137 IND

Identification saved as N° 69

Skip Send Exit

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The World's Sixth Sense®